

State of University-Business Cooperation IRELAND

Business Perspective

Study on the cooperation between higher education institutions and public and private organisations





The State of Irish University-Business Cooperation: the business perspective

Partners



Authors: Victoria Galán-Muros, Balzhan Orazbayeva, Irene Sheridan, Lina Landinez-Gómez, Todd Davey, Arno Meerman and Mihai Melonari.

For further information about the State of European University-Business Cooperation project, national reports or the Global Engagement Monitor, please contact Todd Davey (davey@uiin.org) or Arno Meerman (meerman@uiin.org)



Executive summary

Summary

This report seeks to contribute to our understanding of the Irish business perspective on university-business cooperation (UBC). Examining the perceptions of a wide range of businesses provides positive signs for the future, with 100% of businesses that cooperate with universities planning to maintain or increase their collaboration in the future. Yet, more can be done, for example in supporting businesses with the development of initiatives and activities that can support their cooperation efforts, as well as in developing capabilities, particularly of those businesses not currently engaged in cooperation.

About the study

The results presented in this report reflect the perceptions of businesspeople in Ireland with respect to cooperation between universities and business. Data was collected by means of an online survey sent out via email to a business database that was developed from publicly available information, leading to a total of 81 Irish business responses. The study measured the perceptions of respondents with respect to their businesses and cooperation efforts.

University-Business Cooperation

Irish businesses engage mostly in research UBC activities, like joint R&D (6.1) and consulting (4.5). Only 20% of Irish businesses do not undertake these activities at all. As for education related UBC, mobility of students (4.6) is the most developed UBC activity. And yet, over 40% of businesses do not undertake any management or valorisation related collaboration with the only exception of commercialisation of R&D results.

It is them, not us

Primary barriers identified by the Irish business respondents relate to the well recognised differences between businesses and universities, such as differing motivations as well as high level of bureaucracy in universities. Moreover, business respondents point towards the lack of people with business knowledge within HEIs, as well as the universities' limited awareness of opportunities arising from collaboration with businesses. Differing time horizons also emerge as a hindering factor. NOTE: This report provides a perspective business on university-business cooperation (UBC), drawing on a survey of European higher education institutions (HEIs), academics and businesses. While acknowledging relating limitations to the generalisability of the results due to the size and the non-random nature of the sample, the results provide positive signs both of the present and for the future, while also providing an indication as to areas that require future development.

Executive summary

Relationships matter

While funding to undertake cooperation emerges as the strongest UBC facilitator for Irish businesses, the relationship component seems to be much more prominent. It is the existence of a shared goal, the mutual commitment and mutual trust alongside prior relations with a university partner that facilitate cooperation in the Irish business context. These results indicate that any effort towards enabling cooperation between businesses and universities should focus on the relationship development as a central ingredient.

Enhancing our own business through UBC

Notably, Irish businesses perceive university stakeholders as the primary UBC beneficiaries. But what motivates them then to cooperate with universities? In line with their perception of UBC facilitators, the willingness to obtain funding and additional financial resources emerges as the biggest motivator for Irish businesses. In addition to expected outcomes such as access to knowledge, enhanced innovation capacity as well as the improved reputation, results indicate a positive impact on society as further highly rated benefit motivating Irish businesses to cooperate with universities.

Commitment first

Strong emphasis has been placed on the development of UBC supporting mechanisms by universities. Yet, little is known about such mechanisms in the business realm. This study indicates that the strategies are the most developed mechanisms in the Irish business context, with almost half of respondents indicating the existence of commitment to UBC from the top-level management side, and 36% reporting that there is a specific strategy in place for collaborating with universities. Notably, 35% report that their companies dedicate resources to support UBC.

Collaboration with conviction

Irish businesses perceive themselves as supportive towards cooperation with universities. In particular they believe that universities play a very important role in their innovation efforts and have the capability to absorb knowledge and technology. Irish business identified furthermore their strengths in the ability to offer a lot in research and deliver or develop training. In addition, they state that they are already well connected to the universities, as they have sufficient contacts that they could approach for collaboration.

Introduction

About the study

The study focusses on the cooperation between higher education institutions (HEIs) and public and private organisations in the 28 European Union Member States and 5 associated countries.

The State of European university-business cooperation (UBC) study is executed for the DG Education and Culture at the European Commission (EAC/10/2015) by a consortium led by the Science-to-Business Marketing Research Centre (S2BMRC), in Germany from January 2016 until November 2017.

The aim of the study is to get a more profound, comprehensive and up to date understanding of the state of UBC in Europe: what is the state of play of a wide range of UBC activities in the different countries, what are the main drivers and barriers for the different stakeholders and at what levels; what is the regulatory framework and socio-economic conditions and what kind of measures/initiatives exist on a national level to support the development of UBC. The project investigates UBC from the perspective of both university and business.

Main activities

The main components of the project were a series of expert interviews with 23 recognised UBC experts, 52 good practice case studies, a UBC policy and indicators review as well as a major quantitative survey of stakeholders within both HEIs and business. The survey was translated into 25 languages and sent to all registered European HEIs (numbering over 3,000) in the 33 countries during October-November 2016. Through this, a final sample of 17,410 representatives from within HEIs and business was achieved. This makes the study the largest international study into cooperation between HEIs and business yet completed.

Why care about university-business cooperation?

- UBC is considered to be the engine of knowledgebased societies and economies
- UBC is specially needed in the European context, by increased global competition, with ongoing economic and social problems and high levels of youth unemployment
- UBC helps to create a more connected and functioning relationship between government, business and HEIs, which is at the core of EU funding schemes, such as Horizon 2020 and Erasmus+.
- UBC direct outcomes include:
 - improving the competitiveness of business,
 - increasing the relevance and innovativeness of research and teaching in HEIs,
 - improving the future job prospects of students and graduates,

which can in the longer term:

- create jobs,
- stimulate economic growth,
- increase living standards,
- reduce hindrances to good living.

Study Objectives

The specific objectives for the study are:

- Chart the current state of play and provide an in-depth analysis of UBC in the countries covered by this study, from the HE and business perspectives;
- Deliver 50 case studies of UBC (representative sample, balanced distribution among countries and organisations, balanced distribution of HEI and business led cases);
- Review indicators measuring UBC and propose possible scenarios for the implementations of UBC monitoring in Europe;
- Provide policy conclusions and recommendations for the furthering of UBC and the best approaches to take.



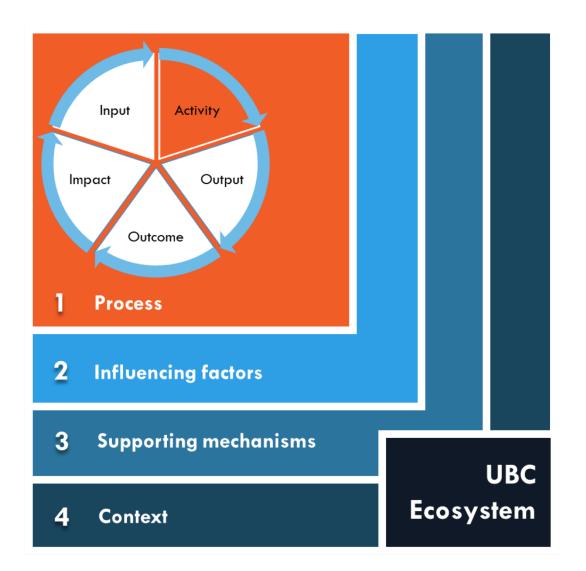
UBC Ecosystem Framework [™]

In order to best organise the project results, a project conceptual framework was chosen.

The UBC Ecosystem Framework has a number of interrelated elements including the process of undertaking UBC, factors that influence UBC, mechanisms supporting UBC and finally the context in which UBC occurs.

The framework ties together the respective project activities, providing a common thread for reporting results and making recommendations.

UBC activities



Source: Galán-Muros, V.; Davey, T. (2017) The UBC Ecosystem: Putting together a comprehensive framework for university-business cooperation. Journal of Technology Transfer. https://doi.org/10.1007/s10961-017-9562-3

UBC activities

Fourteen UBC activities are recognised, commonly categorised into the areas of education, research, valorisation and management.

Area	Activities		
Education	curriculum co- <u>design</u>		
Education	2. curriculum co- <u>delivery</u> (e.g. guest lectures)		
	3. mobility of students (i.e. student internships/placements)		
	4. dual education programmes (i.e. part theory, part practical)		
	5. lifelong learning for people from business (e.g. executive education, industry training and professional courses)		
Dessearch	6. joint R&D (incl. joint funded research)		
Research	7. consulting to business (incl. contract research)		
	8. mobility of professionals (<i>i.e. temporary mobility of academics to business and vice versa</i>)		
Valorization	9. commercialisation of R&D results (e.g. licencing/patenting)		
Valorisation	10. academic entrepreneurship (e.g. spin offs)		
	11. student entrepreneurship (e.g. start-ups)		
Management	12. governance (e.g. participation of academics on business boards and businesspeople participation in university board)		
	13. shared resources (e.g. infrastructure, personnel, equipment)		
	14. industry support (e.g. endowments, sponsorship and scholarships)		

Irish businesses engage mostly in research UBC activities, like joint R&D (6.1) and consulting (4.5). Only 20% of Irish businesses do not undertake these activities at all.

As for education related UBC, mobility of students (4.6) is the most developed UBC activity.

Yet, over 40% of businesses do not undertake any management or valorisation related collaboration (with the exception of commercialisation of R&D results).

Particularly low are the activities of curriculum co-design, student entrepreneurship and governance.

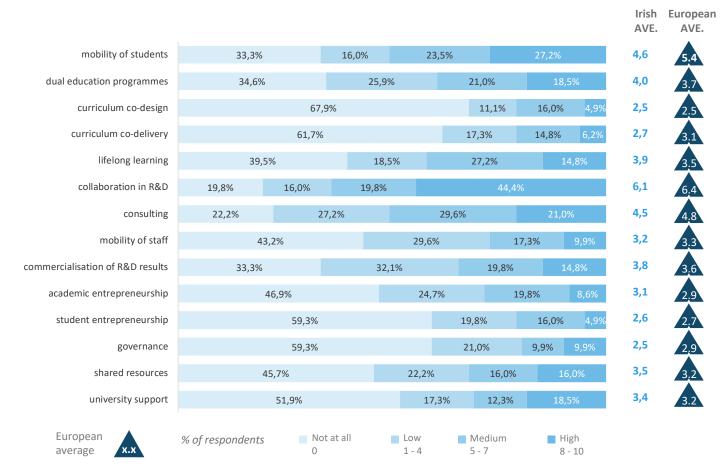
In comparison with the development of the UBC activities for European business, the extent of Irish UBC is very similar. Management Valorisation Research

Education

Development of UBC activities

UBC activities development

'Which UBC activities do you collaborate with universities in?'



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Initiation of UBC

How UBC is initiated

'How often various stakeholders initiate UBC activities'

Your organisation (we take the initiative)	9%	32%		43%		15	%
University alumni now working with our organisation	18%	23%		26%	23%		10%
Individual academics	6% 16	%	56	%		17%	5%
Current university students	3	33%	27%		27%	13%	6 29
University management / leadership	13%	38%	6	27%		17%	5%
Internal intermediaries within the university (e.g. TTO staff)	22%	2	7%	32%		17%	3%
External intermediaries (e.g. regional development agencies or networks)	279	%	33%		24%	10%	6%
Government (e.g. publicly funded programmes)	16%	24%		40%		14%	6%

■ Never ■ Seldom ■ Sometimes ■ Usually ■ Always

Irish businesses clearly perceive themselves as the main initiators of cooperation with universities. 58% of business state that their organisation always or usually initiate UBC.

Ireland businesses see the individual academics and university alumni also active in initiating cooperation.

External intermediaries within the universities and current university students are perceived as passive in UBC initiation. 60% of the businesses report that intermediaries and students never or seldom undertake any first actions towards UBC initiation respectively.

Similarly, 51% of business state that university managers and 49% of internal intermediaries do never or seldom initiate UBC.

When it comes initiation of UBC at a regional level, the Irish Department of Education has recently funded a network of Regional Skills Forum Managers¹ tasked to initiate interactions at a regional level.

% of *respondents*

¹Regional Skills. Partnerships for Skills. URL: http://www.knowledgetransferireland.com/KTI-Reports/

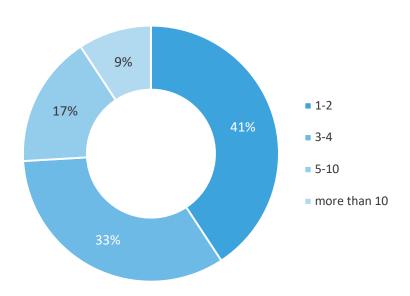
Geographical location still matters

Location of university partners

Percentage of cooperating businesses with				
universities in their region	93%			
universities in their country	91%			
universities outside their country	87%			

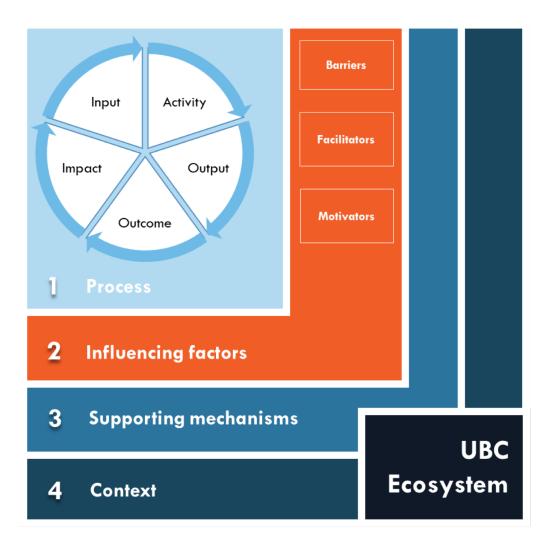
While most businesses cooperate with universities within their region (93%), they also cooperate with universities in Ireland (91%) and internationally (87%).

Number of university partners



Over two thirds (74%) of the Irish businesses cooperate with less than 4 university partners. While 17% have established relations with 5-10 partners, only 9% cooperate with over 10 universities.

Factors influencing UBC



This section outlines the extent to which various factors affect UBC.

Generally, a barrier provides a hindrance or obstacle to doing something. Drivers comprise facilitators, which enable or ease the process, and the motivators, which trigger the starting of an activity and are often related to the expected outcome(s).

At the European level, this study has found that removing a barrier does not necessarily create UBC but rather it makes UBC possible. Instead, it is the facilitators and motivators (drivers) that initiate UBC.

For example, even when a lack of funds is often named as a major barrier to cooperation, the presence of funds may not be enough for cooperation to happen if the perceived facilitators or motivators are not sufficient. The five main factors inhibiting Irish businesses to cooperate with universities are diverse.

The main barrier is related to bureaucracy in universities.

The cultural differences are also seen as important barriers, especially the different motivations between two organisations.

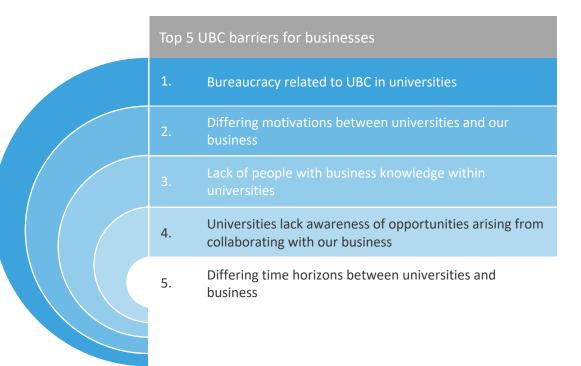
Irish businesses are also hindered by the universities' limited business expertise and their lack of awareness of business opportunities.

The difference in time horizons was also reported as a barrier.

Barriers hindering UBC

Barriers

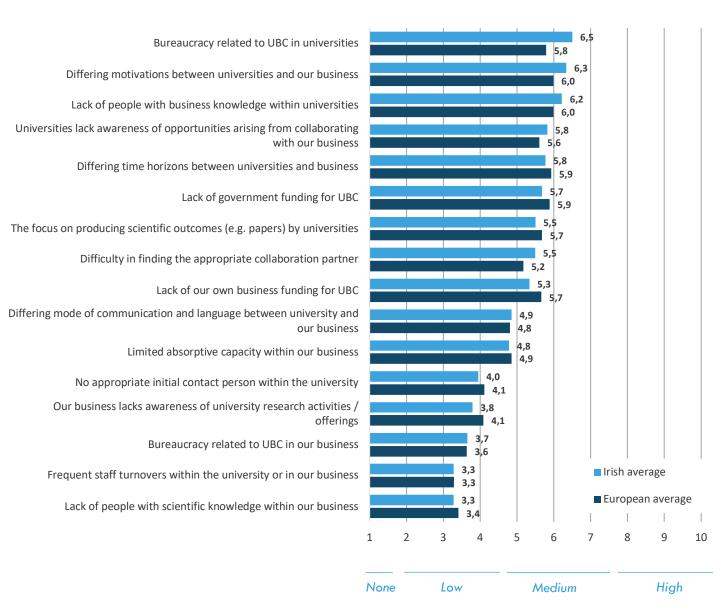
'What is inhibiting your cooperation with universities?'



Barriers hindering UBC

Barriers

'What inhibites your cooperation with universities?'



The majority of barriers perceived by cooperating Irish businesses and their European counterparts are to some extent similar.

The top four barriers perceived by Irish businesses are ranked higher than the European average.

Thus Irish businesses are considerably hindered by the bureaucracy related to UBC in universities, which is the biggest barrier for them. Differing motivations between two organisations and lack of people with business knowledge within universities are further hindering factors that inhibit collaboration for Irish businesses.

Frequent staff turnovers within the university or business and the lack of people with scientific knowledge within businesses are the weakest barriers for both Irish and European businesses. The main factors that facilitate Irish business cooperation with universities are related to existence of funding and personal relationships.

The existence of trust and commitment is seen as important in facilitating cooperation. The existence of prior relationships and shared goals are also likely to play an important role in enhancing UBC.

Drivers stimulating UBC

Drivers are those factors that encourage businesses, academics or HEIs to engage in UBC. Drivers of UBC are divided into two factors:

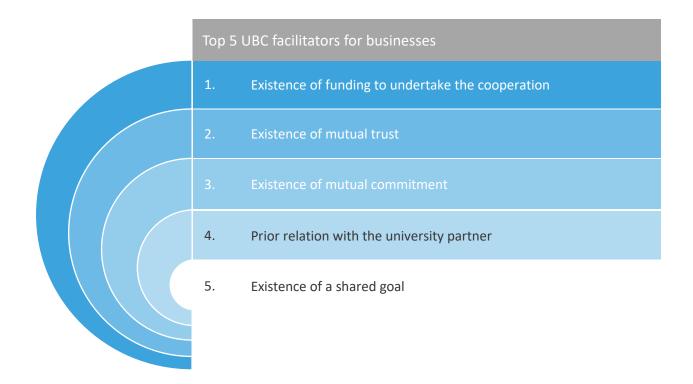
- 1. <u>Facilitators</u> factors that enable or ease cooperation
- <u>Motivators</u> incentives or benefits that the respective stakeholders would like from the cooperation

Together, these two factors provide a comprehensive picture of what compels businesses to cooperate.

The 2010-11 State of European UBC study showed that for European universities the existence of strong UBC drivers can overcome the presence of barriers to UBC.

Facilitators enabling UBC

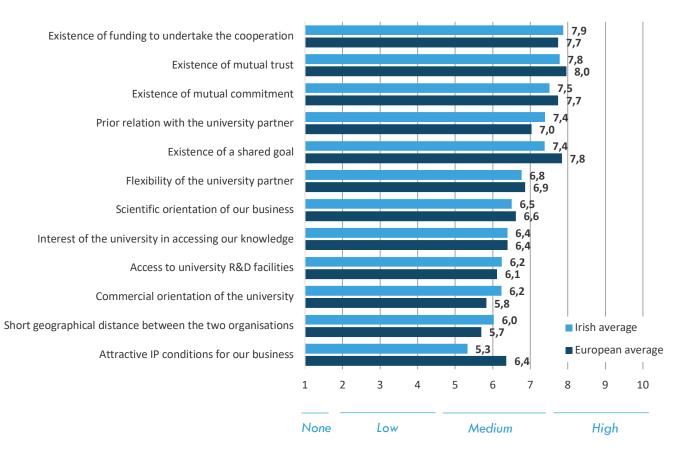
'What is facilitating your cooperation with universities?'



Drivers stimulating UBC

Facilitators

'What facilitates your cooperation with universities?'



Irish and European businesses have a similar perception of UBC facilitators.

However, the existence of a prior relationship is perceived higher by the Irish businesses.

Similarly, geographical proximity and a commercial orientation of the university also facilitates UBC for Irish businesses to a larger extent, compared to European average.

The main factors that facilitate Irish business cooperation with universities are related to existence of funding and personal relationships. The main motivators for Irish businesses to undertake UBC are related to funding and access to new technologies.

Businesses in Ireland cooperate with universities primarily to obtain resources and improve their innovation capacity.

Less important but still relevant motivations are related to the willingness to positively impact society and improve reputation of the organisation.

Drivers stimulating UBC

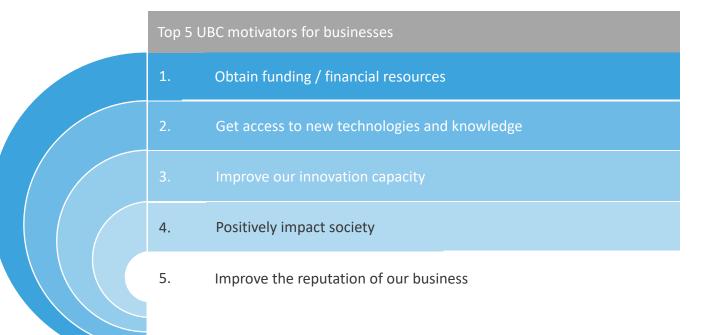
Motivations for UBC are the reasons why businesses collaborate with university.

They provide key information about the outcomes that the businesses seek from their collaborative activities relating to education, research, valorisation and management.

Motivators

'What motivates you to cooperate with universities?'

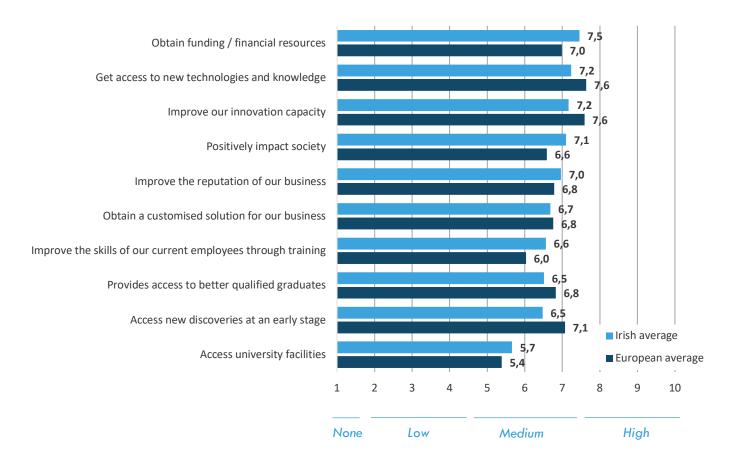
The ability of the collaboration to achieve these outcomes will have a substantial influence on the businesses' assessment of the success of their collaboration.



Drivers stimulating UBC

Motivators

'What motivates you to cooperate with universities?'



Overall, Irish and European perceive UBC motivators differently.

The motivation of obtaining funding is higher for Irish businesses than for European ones.

Similarly, they are also more motivated to impact society than their European counterparts.

On the other hand, Irish businesses are considerably less motivated than European companies by the willingness to improve their innovation capacity and get access to knowledge.

European businesses have also a stronger perception in relation to the motivation to access new discoveries.

Access to university facilities is the least relevant motivation for both groups.

Both Irish and European businesses have similar perceptions with respect to which stakeholders groups benefit more or less from UBC.

Both groups see students and universities as the primary beneficiaries of UBC.

Notably Irish businesses perceive themselves also as UBC beneficiaries but to a slightly lower extent, than their European counterparts.

The lowest benefits are perceived to be for society and government.

Benefits of UBC

Benefits are the perceived positive outcomes (financial and non-financial) from undertaking UBC as relevant for the different stakeholder groups that can potentially participate in UBC.

The perception regarding who benefits from such cooperation can influence the decision to increase or decrease their participation or

Benefits of UBC

'Who receives the benefits of UBC?'

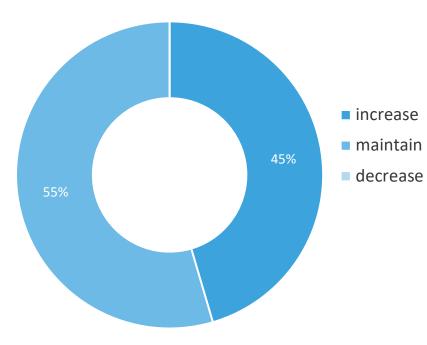
the involvement of other groups. For example, if academics perceive their own benefits to be low, they may refrain from engaging in UBC. Yet, if they perceive benefits for students to be high, they might undertake actions that contribute to students' involvement in UBC.

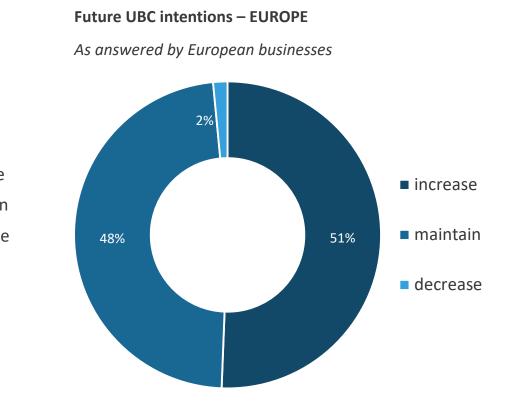
Irish businesses		European businesses		
1.	Students	Students		
2.	Universities	Universities		
3.	Academics	Businesses		
4.	Businesses	Academics		
5.	Society	Society		
6.	Government/public authorities	Government/public authorities		

Future intentions

Future UBC intentions – Ireland

As answered by Irish businesses





100% of Irish businesses that currently cooperate with universities plan to maintain or increase their cooperation. This shows an important momentum for UBC in Irish industry.

European businesses seem to be even more confident in their future intentions towards UBC as over half (51%) of them plan to increase their cooperation activities and only 2% to reduce them.

The willingness of Irish cooperating businesses to recommend to a colleague to engage in UBC varies depending on whether this cooperation is in research or in education.

Irish businesses are less satisfied with their cooperation in education than their cooperation in research.

They are more satisfied with UBC in research than their European counterparts (NPS=33). While 48% of them will promote it positively, 15% would do it negatively.

Contrary, Irish businesses are less satisfied with their cooperation in education (NPS= 4). 37% would highly recommend it and as much as 33% will not recommend it. This is however still more positive than for European businesses (NPS = -2).

Willingness to recommend UBC

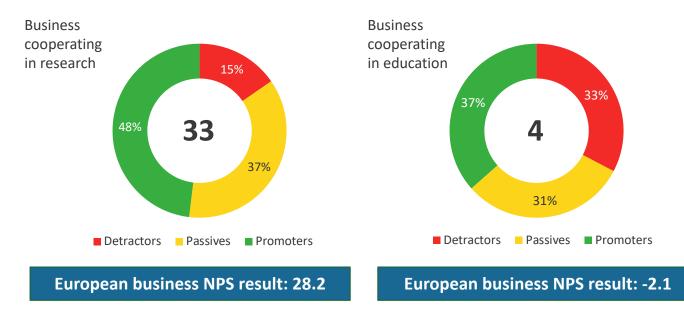
Respondents were asked how likely it would be that they recommend to a business colleague to engage in UBC in the areas of R&D and education and training (E&T,). The *Net Promoter Score* metric offers a proxy for customer satisfaction.

Willingness to recommend cooperation with universities in R&D or E&T

	Detractors	Passives	Promoters
Business cooperating with universities in R&D	15%	37%	48%
Business cooperating with universities in E&T	33%	31%	37%

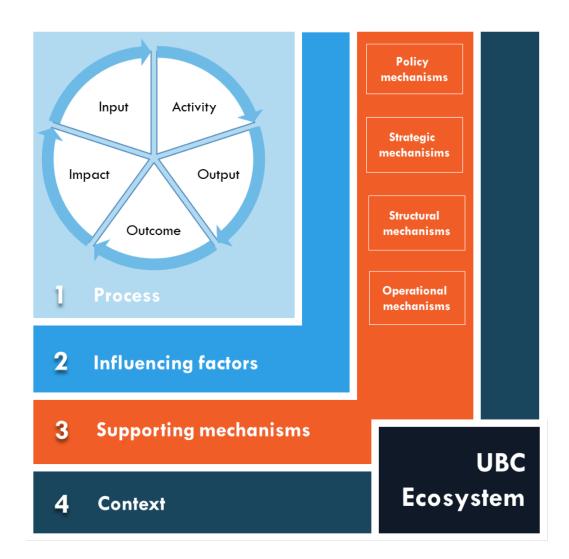
Net promotor score					
33					
4					

Satisfaction with cooperation with universities (net promoter score)



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Supporting mechanisms for UBC



Supporting mechanisms are interventions designed to support the development of cooperation between HEIs and business.

There are four types of supporting mechanisms:

- Policy
- Strategic
- Structural
- Operational

This section outlines the extent to which UBC supporting mechanisms are developed in this sample from the HEI perspective.

At the European level, the extent of development of all these mechanisms significantly influences the extent of cooperation.

Irish businesses can adopt a range of supporting mechanisms in their interaction with universities, but most of them are present in under a third the businesses.

The most developed mechanism, and the only one present in almost half of Irish businesses in the sample is a toplevel management committed to UBC (47%). The collaboration strategy for UBC (36%) and the resources dedicated (35%) are the further mechanisms present.

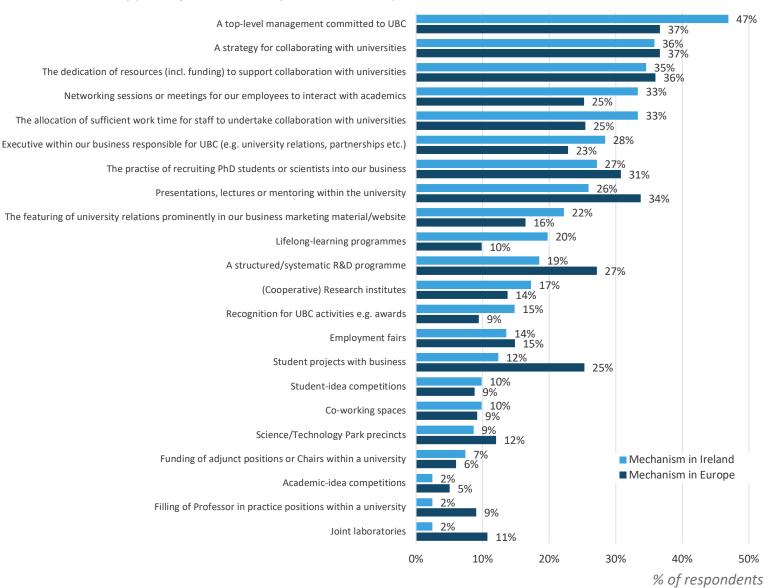
Compared to the European average, UBC supporting mechanisms in Ireland are generally more common. Particularly, the Irish business managers are significantly more devoted to UBC than the European average. Similarly, networking and allocation of time are higher.

Contrary, a structured R&D program and student projects are higher developed in Europe than in Irish businesses.

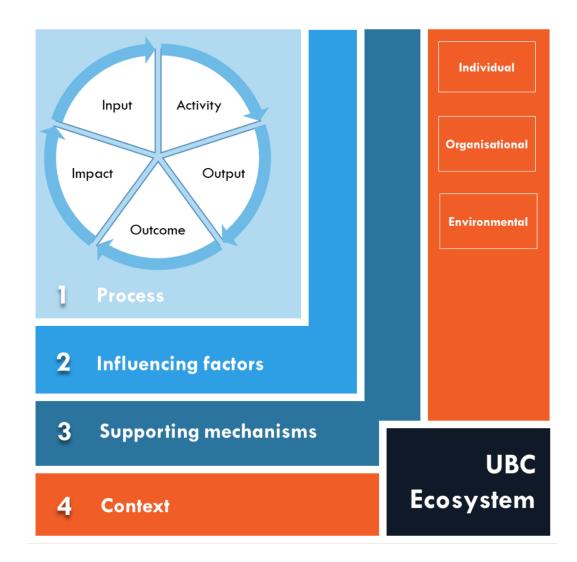
Supporting mechanisms for UBC

Mechanisms supporting UBC

'Do these supporting mechanisms for UBC exist in your business?'



Context



The degree to which UBC takes place is influenced by a set of elements present in the context of the organisation that cannot be changed in short term.

These include the characteristics of individual actors involved, the institutional factors relating to the university and business, as well as a set of broader environmental factors (political, economic, social, technological, etc.).

This section outlines how some contextual factors influence UBC in the country.

Irish business cooperating with universities perceive their context similarly to European cooperating businesses.

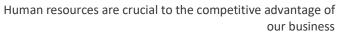
Human resources are essential for their competitiveness and the business innovation and R&D profile is seen as strong.

A lower perception emerges regarding the characteristics of the regional business sector and economy, but still above the European average.

Context

Contextual factors affecting UBC

'To what extent do you agree with the following statements?'



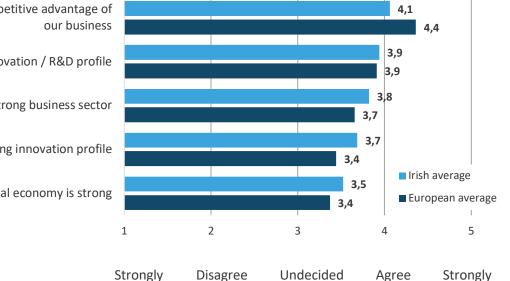
Our business has a strong innovation / R&D profile

Our region has a strong business sector

Our regional business sector has a strong innovation profile

Our regional economy is strong

disagree



agree

UBC capabilities and beliefs

Supportive UBC environment

How supportive are your organisation and environment for UBC?'

Our business believes that universities can play a very important role in our innovation efforts

Our business has the capability to absorb the knowledge and technology coming from universities

Our business has a lot to offer to universities in research

Our business has sufficient university contacts and relations that we could approach for collaboration

Our business has a lot to offer to universities in developing and delivering education and training

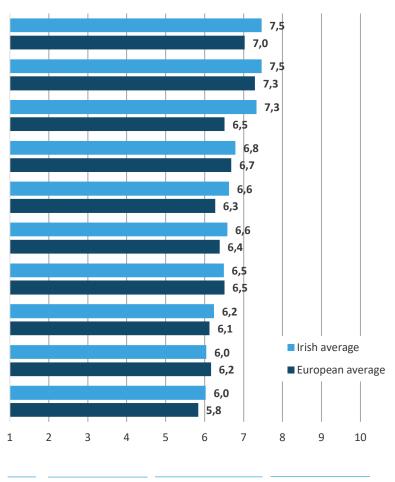
Our business believes it is our responsibility to collaborate with universities in research

There is sufficient support within our business to undertake UBC

Our business has sufficient skills and knowledge of UBC (including the procedures and processes)

Our business has sufficient knowledge of what universities want from collaboration

Our business believes it is our responsibility to collaborate with universities in education



None Low Medium High

Irish businesses perceive themselves as supportive towards cooperation with universities.

In particular they believe that universities play a very important role in their innovation efforts and that they have the capability to absorb knowledge and technology.

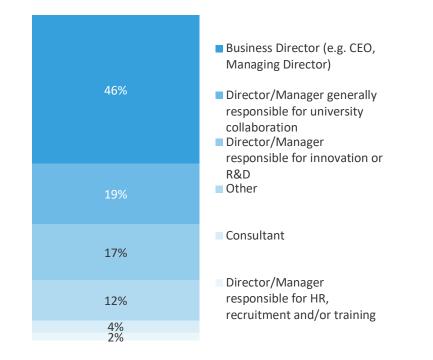
Irish business identified their strength in the ability to do research and deliver training. They furthermore also state that they have sufficient contacts and relations with universities.

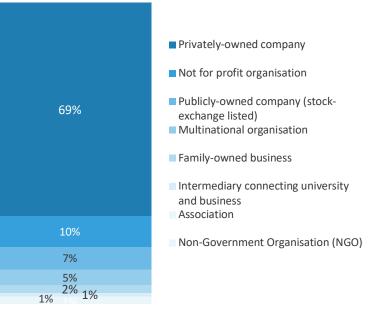
Overall, Irish businesses perceive themselves in a more positive way in comparison to the European average.

Respondents profile

Position of respondent

Type of business



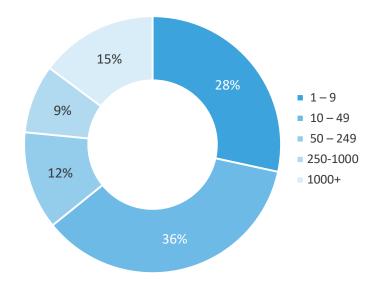


Almost a half of the Irish business sample (46%) are business directors, which represent the largest group. It is followed by directors responsible for university collaboration (19%) and directors responsible for innovation or R&D (17%). The remaining businesses respondents identified themselves as consultants (12%), and directors of HR, recruitment and training (4%). 2% of Irish respondents hold 'other' positions.

A wide variety of businesses were represented in the Irish sample, but over half of them (69%) are privately-owned companies, followed by not for profit organizations (10%). The type of businesses with less than 10% of representation include: family-owned businesses, NGOs and intermediaries connecting universities and businesses.

Respondents profile

Business size



Sample Size	
Irish business managers	n = 81
European business managers	n = 3.113

64% of the Irish business sample is comprised by either small firms (10 to 49 employees) or micro-sized businesses. Larger companies with more than 1,000 people employed represent 15%. 21% are based in medium-sized companies. It need to be considered that 99.8% of Irish business are SMEs, which are underrepresented in this sample.



Contact us

Todd Davey - davey@uiin.org Arno Meerman - meerman@uiin.org

This report is part of the DG Education and Culture study on the University-Business Cooperation in Europe: drivers, challenges and opportunities in Europe EAC/10/2015. Further information can be found at <u>www.ub-cooperation.eu</u>

This report is also part of the Global University-Business Monitor initiative, a global study into university engagement and cooperation between university and business. Further information can be found at www.uni-engagement.com





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